PART 70 SIGNIFICANT SOURCE MODIFICATION
OFFICE OF AIR MANAGEMENT

Fabwel Composites, Inc.
16710 Maple Drive
Goshen, Indiana 46526

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 039-12284-00002	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a fiberglass panel manufacturing operation.

Responsible Official:	**Mark Farver**
Source Address:	**16710 Maple Drive, Goshen, Indiana 46526**
Mailing Address:	**16710 Maple Drive, Goshen, Indiana 46526**
Phone Number:	**(219) 534-3447**
SIC Code:	**3089**
County Location:	**Elkhart**
County Status:	**Attainment for all criteria pollutants**
Source Status:	**Part 70 Permit Program** **Minor Source under PSD** **Major Source, Section 112 of the Clean Air Act**

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

(a) One (1) fiberglass panel manufacturing line coating a maximum of 4.5 molds per hour, consisting of one air assisted airless gel coat application system exhausting through five (5) stacks designated as CEX1-CEX5, and one (1) non-atomized spray resin application system exhausting through five (5) stacks designated as CEX1-CEX5, with dry filters for overspray.

(b) Fourteen (14) Radiant Tube type heaters rated at 0.1 million (MM) btu/hr each, two (2) Unit Heaters rated at 0.69 million MMbtu/hr each, six (6) air make-up units rated at 3.008 MMbtu/hr each.

(c) Two (2) styrene resin storage tanks, each with a capacity of 6,000 gallons

(d) One (1) woodworking station, with a maximum raw material input rate of 1,411 lb/hr, consisting of one (1) CNC panel saw, two (2) hand saws, and eight (8) hand grinders, with one (1) baghouse for control (CDC1).

(e) One (1) woodworking station, with a maximum raw material input rate of 1,423 lb/hr, consisting of two (2) wide belt side sanders and two (2) table saws, with one (1) baghouse for control (CDC2).

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22).

(b) The source has submitted their Title V application (T-039-6091-00002), on June 7, 1996. The Office of Air Management shall incorporate this construction permit into their Title V.

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions [326 IAC 2-7-1]

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.

(c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

However, in the event that the Title V application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:

(1) If the Title V draft permit has not gone on public notice, then the change/addition covered by the Significant Source Modification will be included in the Title V draft.

(2) If the Title V permit has gone thru final EPA proposal and would be issued ahead of the Significant Source Modification, the Significant Source Modification will go thru a

concurrent 45 day EPA review. Then the Significant Source Modification will be incorporated into the final Title V permit at the time of issuance.

(3) If the Title V permit has not gone thru final EPA review and would be issued after the Significant Source Modification is issued, then the Modification would be added to the proposed Title V permit, and the Title V permit will issued after EPA review.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, on the attached Certification Form, with each submittal.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) upon startup, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.

(b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this approval:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided in this approval, all air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

Testing Requirements [326 IAC 2-7-6(1)]

C.7 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.8 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this approval. All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

C.9 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.10 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this approval;

(3) The Compliance Monitoring Requirements in Section D of this approval;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this approval; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this approval. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this approval by the Permittee and maintained on site, and is comprised of :

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this approval; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this approval, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the approval unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the approval conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the approval, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.11 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented.

IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.12 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6] [326 IAC 2-7-19 (e)]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements and be used for the purpose of a Part 70 fee assessment:

(1) Indicate actual emissions of criteria pollutants from the source;

(2) Indicate actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

C.13 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

(a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.14 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this approval;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or

contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C.8 - Compliance Monitoring Plan - Failure to take Response Steps, of this approval, and whether a deviation from an approval condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.15 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) The reports required by conditions in Section D of this approval shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

(c) Unless otherwise specified in this approval, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.

SECTION D.1 FACILITY OPERATION CONDITIONS

Fiberglass Manufacturing Line

Facility Description [326 IAC 2-7-5(15)]

One (1) fiberglass panel manufacturing line coating a maximum of 4.5 molds per hour, consisting of one air assisted airless gel coat application system exhausting through five (5) stacks designated as CEX1-CEX5, and one (1) non-atomized spray resin application system exhausting five (5) stacks designated as (CEX1-CEX5), with dry filters for overspray.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitation and Standards

D.1.1 New Source Toxics Control [326 IAC 2-4.1-1] and VOC [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the new fiberglass panel manufacturing operation are subject to the requirements of 326 IAC 8-1-6, which requires that the Best Available Control Technology (BACT) be used to control VOC emissions. BACT for this new source shall be satisfied by the MACT determination of 326 IAC 2-4.1 (New Source Toxics Control).

Pursuant to the MACT determination under 326 IAC 2-4.1-1, operating conditions for the new fiberglass panel manufacturing operation shall be the following:

(a) Use of resins and gel coats that contain styrene shall be limited such that the potential to emit (PTE) volatile organic HAP from use of such resins and gel coats only shall be less than 100 tons per twelve (12) consecutive month period. Compliance with this limit shall be determined based upon the following criteria:

(1) Monthly usage by weight, content of monomer that is HAP, method of application, and other emission reduction techniques used for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the HAP monomer content, method of application, and other emission reduction techniques used for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAM.

(2) The emission factors approved for use by IDEM, OAM shall be taken from the following reference: “Unified Emission Factors for Open Molding of Composites,” Composites Fabricators Association, April 1999, with the exception of the emission factors for controlled spray application. This reference is included with this permit. For HAP-emitting operations not addressed by this reference, emission factors shall be taken from U.S. EPA’s AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.

(b) The HAP monomer content of resins and gel coats used shall be limited to the following or their equivalent on an emissions mass basis:

Type of Gel Coat or Resin	HAP Monomer Content, % by weight
Production[1] Gel Coat	37
Production Resin	35

[1] Production refers to the manufacture of parts.

HAP monomer contents shall be calculated on a neat basis, which means excluding any filler. Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis.

Gel coats or resins with HAP monomer contents lower than those specified in the table in this subsection or additional emission reduction techniques approved by IDEM, OAM may be used to offset the use of gel coats or resins with HAP monomer contents higher than those specified in the table in this subsection. This is allowed to meet the HAP monomer content limits for resins and gel coats and shall be calculated on an equivalent emissions mass basis as shown below:

(Emissions from higher than compliant HAP monomer content resin or gel coat) - (Emissions from compliant resin or gel coat) # (Emissions from compliant resin or gel coat) - (Emissions from lower than compliant HAP monomer content resin or gel coat and/or using other emission reduction techniques).

Where: Emissions, lb or ton = M (mass of resin or gel coat used, lb or ton) * EF (HAP monomer emission factor for resin or gel coat used, %);

EF, HAP monomer emission factor = emission factor, expressed as pounds (lbs) HAP emitted per ton of resin/gel coat processed, which is indicated by the HAP monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

(c) Non-atomized spray application technology shall be used to apply unfilled production resins. Non-atomized spray application technology includes flow coaters, flow choppers, pressure-fed rollers, or other non-spray applications of a design and specifications approved by IDEM, OAM.

If it is not possible to apply a portion of unfilled resins with non-atomized spray application technology, equivalent emissions reductions must be obtained via use of other emission reduction techniques. Examples of other emission reduction techniques include, but are not limited to, lower HAP monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging/bonding, or installing a control device.

(d) Optimized spray techniques according to a manner approved by IDEM,OAM shall be used for gel coats and filled resins (where fillers are required for corrosion or fire retardant purposes) at all times. Optimized spray techniques include, but are not limited to, the use of airless, air-assisted airless, high volume low pressure (HVLP), or other spray applicators demonstrated to the satisfaction of IDEM, OAM, to be equivalent to the spray applicators listed above.

HVLP spray is the technology used to apply material to substrate by means of application equipment that operates between one-tenth (0.1) and ten (10) pounds per

square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

(e) The listed work practices shall be followed:

(1) To the extent possible, a non-VOC, non-HAP solvent shall be used for cleanup.

(2) For VOC- and/or HAP-containing materials:

(i) Cleanup solvent containers shall be used to transport solvent from drums to work.

(ii) Cleanup stations shall be closed containers having soft-gasketed, spring-loaded closures and shall be kept completely closed when not in use.

(iii) Cleanup rags saturated with solvent shall be stored, transported, and disposed of in containers that are closed tightly.

(iv) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent into the air.

(v) All solvent sprayed during cleanup or resin changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

(3) All material storage containers shall be kept covered when not in use.

D.1.2 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the particulate matter emissions from the fiberglass operations shall not exceed 4.08 lb/hr based on the following equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 3-2.1]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the volatile organic compound limit specified in Condition D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.5 Volatile Organic Compounds (VOC)

Compliance with the monomer content and usage limitations contained in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the manufacturer. However, IDEM, OAM, reserves the authority to determine

compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.6 Particulate Matter (PM)

The dry filters for particulate matter control shall be in operation at all times when the fiberglass facilities are in operation.

Compliance Monitoring Requirements

D.1.7 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the particulate emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

D.1.8 Visible Emissions Notations

(a) Weekly visible emission notations of the fiberglass facilities' stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements

D.1.9 Record Keeping Requirements

(a) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the volatile organic HAP emission limit established in Condition D.1.2.

(1) The usage by weight and monomer content of each resin and gel coat. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;

(2) A log of the dates of use;

(3) Method of application and other emission reduction techniques for each resin and gel coat used;

(4) The calculated total volatile organic HAP emissions from resin and gel coat use for each month.

(b) To document compliance with Conditions D.1.7 and D.1.9, the Permittee shall maintain a log of daily overspray observations, daily and weekly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(c) To document compliance with Condition D.1.10, the Permittee shall maintain records of daily visible emission notations of the fiberglass operations' stack exhaust.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.2 FACILITY OPERATION CONDITIONS

Woodworking Stations, Tube Heaters, Unit Heaters, and Air Make-up Units

Facility Description [326 IAC 2-7-5(15)]:

(a) One (1) woodworking station, with a maximum raw material input rate of 1,411 lb/hr, consisting of one (1) CNC panel saw, two (2) hand saws, and eight (8) hand grinders, with one (1) baghouse for control (CDC1).

(b) One (1) woodworking station, with a maximum raw material input rate of 1,423 lb/hr, consisting of two (2) wide belt side sanders and two (2) table saws, with one (1) baghouse for control (CDC2).

(c) Fourteen (14) Radiant Tube type heaters rated at 0.1 million (MM) btu/hr each, two (2) Unit Heaters rated at 0.69 million MMbtu/hr each, six (6) air make-up units rated at 3.008 MMbtu/hr each.

(d) Two (2) styrene resin storage tanks, each with a capacity of 6,000 gallons

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.2.1 Particulate Matter (PM) [326 IAC 6-3]

(a) Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) emissions from Baghouse CDC1 shall be limited to 3.25 lb/hr based on the following equation:

$E = 4.10 P^{0.67}$ where: E = rate of emission in pounds per hour and P = process weight rate in tons per hour

The baghouse shall be in operation at all times the woodworking equipment is in operation.

(b) Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) emissions from Baghouse CDC2 shall be limited to 3.26 lb/hr, based on the following equation:

$E = 4.10 P^{0.67}$ where: E = rate of emission in lbs/hr, and P = process weight rate in tons/hr

The baghouse shall be in operation at all times the woodworking equipment is in operation.

Compliance Determination Requirements

D.2.2 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM compliance with the particulate matter (PM) limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.2.3 Particulate Matter (PM)

The baghouses for PM control shall be in operation and control emissions from the working stations at all times that the woodworking stations are in operation.

D.2.4 Visible Emissions Notations

(a) Daily visible emission notations of the woodworking stations stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.2.5 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the woodworking process, at least once weekly when the woodworking processes are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 2.0 and 4.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.2.6 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.7 Record Keeping Requirements

(a) To document compliance with Condition D.2.5, the Permittee shall maintain records of daily visible emission notations of the woodworking stations stack exhaust.

(b) To document compliance with Condition D.2.6, the Permittee shall maintain the following:

(1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle: frequency and differential pressure.

(2) Documentation of all response steps implemented, per event .

(3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

(4) Quality Assurance/Quality Control (QA/QC) procedures.

(5) Operator standard operating procedures (SOP).

(6) Manufacturer's specifications or its equivalent.

(7) Equipment "troubleshooting" contingency plan.

(8) Documentation of the dates vents are redirected.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: Fabwel Composites, Inc.
Source Address: 16710 Maple Drive, Goshen, Indiana 46526
Mailing Address: 16710 Maple Drive, Goshen, Indiana 46526
Source Modification No.: 039-12284-00002

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

Part 70 Source Modification Quarterly Report

Source Name: Fabwel Composites, Inc.
Source Address: 16710 Maple Drive, Goshen, Indiana 46526
Mailing Address: 16710 Maple Drive, Goshen, Indiana 46526
Source Modification No.: 039-12284-00002
Facility: One (1) Fiberglass Panel Manufacturing line consisting of one (1) gel coat application system and one (1) non-atomized resin application system
Parameter: VOC/HAP PTE
Limit: 100 Tons per twelve (12) consecutive month period

YEAR: _____

Month	VOC/HAP Emissions This Month (tons)	VOC/HAP Emissions Previous 11 Months (tons)	VOC/HAP Emissions 12 Month Total (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Fabwel Composites, Inc.
16710 Maple City Drive
Goshen, Indiana 46526

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____,I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____ .
(Company Name)

4. I hereby certify that Fabwel Composites, Inc. 16710 Maple City Drive, Goshen, Indiana 46526, has constructed an additional fiberglass panel manufacturing line in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on May 18, 2000 and as permitted pursuant to **Construction Permit No. CP-039-12284-00002,** issued on _____.

5. Additional (?operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit. (Delete this statement if it does not apply.)

6. I hereby certify that Fabwel Composites, Inc., is now subject to the Title V program and will submit a Title V (or FESOP) operating permit application within twelve (12) months from the postmarked submission date of this Affidavit of Construction.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

_____
Signature

_____
Date

STATE OF INDIANA)
)SS
COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 20 _____ .

My Commission expires: _____

_____
Signature

_____
Name (typed or printed)

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Part 70 Significant Source Modification.

Source Background and Description

Source Name:	**Fabwel Composites, Inc.**
Source Location:	**16710 Maple City Drive, Goshen, Indiana 46526**
County:	**Elkhart**
SIC Code:	**3089**
Operation Permit No.:	**T-039-6091-00002**
Operation Permit Issuance Date:	**Not issued yet**
Significant Source Modification No.:	**039-12284-00002**
Permit Reviewer:	**ERG/MP**

The Office of Air Management (OAM) has reviewed a modification application from Fabwel Composites, Inc. relating to the construction of the following emission units and pollution control devices:

(a) One (1) fiberglass panel manufacturing line coating a maximum of 4.5 molds per hour, consisting of one air assisted airless gel coat application system exhausting through five (5) stacks designated as CEX1-CEX5, and one (1) non-atomized spray resin application system exhausting through five (5) stacks designated as CEX1-CEX5, with dry filters for overspray.

(b) Fourteen (14) Radiant Tube type heaters rated at 0.1 million (MM) btu/hr each, two (2) Unit Heaters rated at 0.69 million MMbtu/hr each, six (6) air make-up units rated at 3.008 MMbtu/hr each.

(c) Two (2) styrene resin storage tanks, each with a capacity of 6,000 gallons.

(d) One (1) woodworking station, with a maximum raw material input rate of 1,411 lb/hr, consisting of one (1) CNC panel saw, two (2) hand saws, and eight (8) hand grinders, with one (1) baghouse for control (CDC1).

(e) One (1) woodworking station, with a maximum raw material input rate of 1,423 lb/hr, consisting of two (2) wide belt side sanders and two (2) table saws, with one (1) baghouse for control (CDC2).

History

On May 18, 2000, Fabwel Composites, Inc., submitted an application to the OAM requesting to add an additional Fiberglass panel manufacturing line to their existing plant. Fabwel Composites, Inc., submitted their Title V permit application (T-039-6091-00002) on June 7, 1996, and is currently operating under construction permits CP-039-4937-00002 and CP-039-9288-00002.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
CEX1 thru CEX5	Gel Coat	30	3.66	48,000	ambient
CUH4 and CUH5	Unit Heaters	30	0.5	200	UK
CTH1 thru CTH14	Radiant Tube Heaters	30	0.5	200	UK
CEX6	Resin Application	30	2.4	40,000	ambient

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on May 18, 2000, and additional information was received on June 27, 2000 and July 11, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 13).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	536
PM-10	536
SO_2	0.058
VOC	232
CO	7.67
NO_x	9.12

HAP's	Potential To Emit (tons/year)
Styrene	118.97
Toluene	3.10E-04
Methyl Ethyl Ketone	0.37
Methyl Methacrylate	29.18
Benzene	1.92E-04
Dichlorobenzene	1.09E-04

HAP's	Potential To Emit (tons/year)
Formaldehyde	6.84E-03
Hexane	1.64E-01
Lead	4.56E-05
Cadmium	1.00E-04
Chromium	1.37E-04
Manganese	3.47E-05
Nickel	1.92E-04
TOTAL	148.66

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4) as the potential to emit for both VOC and PM-10 exceed twenty-five (25) tons per year.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	maintenance attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as maintenance attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Elkhart County has been classified as attainment or unclassifiable for particulate matter, CO, NO_X, and SO_2. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	35.5
PM-10	35.5
SO_2	0.003
VOC	249
CO	1.8
NOx	7.7

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon the emission calculations presented in the TSD for the construction permit CP-039-9288-00002.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Open molding	17.9936	17.9936		100			100
Accessory Solvents				83.29			0.37
Baghouse (CDC1)	14.22	14.22					
Baghouse (CDC2)	14.29	14.29					
Tanks				0.03			0.03
Combustion Sources	0.7	0.7	0.06	0.5	7.7	9.1	0.17
Total	47.20	47.20	0.06	183.82	7.7	9.1	100.57

This modification to an existing minor stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) 40 CFR Part 60, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels for which Construction, Reconstruction, or Modification Commenced after July 23, 1984) does not apply to this facility since the tanks are less than 40 cubic meters in volume. There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability -Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

326 IAC 2-2 does not apply because the potential to emit from the referenced facilities is 183 tons VOC per year, which is less than the PSD threshold of 250 tons year. However, after this modification the source will have a VOC PTE of greater than 250 tons per year, which makes it a possibility that any further modifications to the source will trigger PSD review.

326 IAC 2-6 (Emission Reporting)

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than ten (10) tons per year of VOC and is located in Elkhart County. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement for the facility. The annual statement must be received by April 15 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Baghouse CDC1)

Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) emissions from Baghouse CDC1 shall be limited to 3.25 lb/hr based on the following equation:

$E = 4.10 P^{0.67}$ where: E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The baghouse shall be in operation at all times the woodworking equipment is in operation.

326 IAC 6-3-2 (Baghouse CDC2)

Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) emissions from Baghouse CDC2 shall be limited to 3.26 lb/hr, based on the following equation:

$E = 4.10 P^{0.67}$ where: E = rate of emission in lbs/hr, and
P = process weight rate in tons/hr

The baghouse shall be in operation at all times the woodworking equipment is in operation.

326 IAC 6-3-2 (Fiberglass Panel Operations)

Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) emissions from the fiberglass panel operation shall be limited to 4.08 lb/hr, based on the following equation:

$E = 4.10 P^{0.67}$ where: E = rate of emission in lb/hr, and
P = process weight rate (PWR), 0.9945 ton/hr

The dry filters shall be in operation at all times the fiberglass panel equipment is in operation.

326 IAC 8-1-6 (Best Available Control Technology)

The fiberglass panel manufacturing operation is subject to the requirements of 326 IAC 8-1-6 because the potential emissions are greater than 25 tons per year and there are no other applicable Article 8 rules that apply. It is determined that the BACT requirements under 326 IAC 8-1-6 shall be satisfied by meeting the MACT standards under the New Source Toxics Control Rule (325 IAC 2-4.1-1).

326 IAC 2-4.1-1 (Maximum Achievable Control Technology)

Pursuant to the MACT determination under 326 IAC 2-4.1-1, operating conditions for the new fiberglass panel manufacturing operation shall be the following:

(a) Use of resins and gel coats that contain styrene shall be limited such that the potential to emit (PTE) volatile organic HAP from use of such resins and gel coats only shall be less than 100 tons per twelve (12) consecutive month period. Compliance with this limit shall be determined based upon the following criteria:

(1) Monthly usage by weight, content of monomer that is HAP, method of application, and other emission reduction techniques used for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the HAP monomer content, method of application, and other emission reduction techniques used for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAM.

(2) The emission factors approved for use by IDEM, OAM shall be taken from the following reference: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, April 1999, with the exception of the emission factors for controlled spray application. For HAP-emitting operations not addressed by this reference, emission factors shall be taken from U.S. EPA's AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.

(b) The HAP monomer content of resins and gel coats used shall be limited to the following or their equivalent on an emissions mass basis:

Type of Gel Coat or Resin	HAP Monomer Content, % by weight
Production[1] Gel Coat	37
Production Resin	35

[1] Production refers to the manufacture of parts.

HAP monomer contents shall be calculated on a neat basis, which means excluding any filler. Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis.

Gel coats or resins with HAP monomer contents lower than those specified in the table in this subsection or additional emission reduction techniques approved by IDEM, OAM may be used to offset the use of gel coats or resins with HAP monomer contents higher than those specified in the table in this subsection. This is allowed to meet the HAP

monomer content limits for resins and gel coats and shall be calculated on an equivalent emissions mass basis as shown below:

(Emissions from higher than compliant HAP monomer content resin or gel coat) - (Emissions from compliant resin or gel coat) # (Emissions from compliant resin or gel coat) - (Emissions from lower than compliant HAP monomer content resin or gel coat and/or using other emission reduction techniques).

Where: Emissions, lb or ton = M (mass of resin or gel coat used, lb or ton) * EF (HAP monomer emission factor for resin or gel coat used, %);

EF, HAP monomer emission factor = emission factor, expressed as pounds (lbs) HAP emitted per ton of resin/gel coat processed, which is indicated by the HAP monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

(c) Non-atomized spray application technology shall be used to apply unfilled production resins. Non-atomized spray application technology includes flow coaters, flow choppers, pressure-fed rollers, or other non-spray applications of a design and specifications approved by IDEM, OAM.

If it is not possible to apply a portion of unfilled resins with non-atomized spray application technology, equivalent emissions reductions must be obtained via use of other emission reduction techniques. Examples of other emission reduction techniques include, but are not limited to, lower HAP monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging/bonding, or installing a control device.

(d) Optimized spray techniques according to a manner approved by IDEM, OAM shall be used for gel coats and filled resins (where fillers are required for corrosion or fire retardant purposes) at all times. Optimized spray techniques include, but are not limited to, the use of airless, air-assisted airless, high volume low pressure (HVLP), or other spray applicators demonstrated to the satisfaction of IDEM, OAM, to be equivalent to the spray applicators listed above.

HVLP spray is the technology used to apply material to substrate by means of application equipment that operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

(e) The listed work practices shall be followed:

(1) To the extent possible, a non-VOC, non-HAP solvent shall be used for cleanup.

(2) For VOC- and/or HAP-containing materials:

(I) Cleanup solvent containers shall be used to transport solvent from drums to work.

(ii) Cleanup stations shall be closed containers having soft-gasketed, spring-loaded closures and shall be kept completely closed when not in use.

(iii) Cleanup rags saturated with solvent shall be stored, transported, and disposed of in containers that are closed tightly.

(iv) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent into the air.

(v) All solvent sprayed during cleanup or resin changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

(3) All material storage containers shall be kept covered when not in use.

326 IAC 1-6-3 (Preventive Maintenance Plan)

(a) The Permittee shall prepare and maintain Preventative Maintenance Plans (PMP) upon startup, including the following information on each:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission units;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the Preventative Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM and OAM upon request and shall be subject to review and approval by IDEM and OAM.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

326 IAC 3-6 (Testing Requirements)

The permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the less than 100 ton/yr volatile

organic compound limit shall be determined by a performance test conducted in accordance with Section C- Performance Testing.

Volatile Organic Compounds (VOC)
Compliance with the monomer content and usage limitations shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the manufacturer. However, IDEM, OAM reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Particulate Matter (PM)
The dry filters and baghouses for particulate matter control shall be in operation at all times when the fiberglass and woodworking facilities are in operation.

Monitoring
(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry filters. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the fiberglass stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) The Permittee shall take readings of the total static pressure drop across the dust collectors, at least once a week. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the dust collector shall be maintained within the range of 2 and 4 inches of water. The Preventive Maintenance Plan for the dust collector shall contain troubleshooting contingency and corrective actions for the dust collector when the pressure reading is outside of this range for any one reading.

(d) The instrument used for determining the pressure shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

(e) The gauge employed to take the pressure drop across the dust collector or any part of the facility shall have a scale such that the expected normal reading shall be no less than 20% of full scale and be accurate within ±2% of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.

(f) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Visible Emissions Notations
(a) Daily visible emission notations of the fiberglass facilities' stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. Visible emission notations of the woodworking stations stack exhaust shall be performed weekly. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements

Record Keeping Requirements

(a) To document compliance with the fiberglass line limitations, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the volatile organic HAP emission limit.

(1) The usage by weight and monomer content of each resin and gel coat. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(2) A log of the dates of use;

(3) Method of application and other emission reduction techniques for each resin and gel coat used;

(4) The calculated total volatile organic HAP emissions from resin and gel coat use for each month.

(b) To document compliance with the testing and visible emission notation requirements, the Permittee shall maintain a log of daily overspray observations, daily and weekly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(c) To document compliance with the record keeping requirements, the Permittee shall maintain records of daily visible emission notations of the fiberglass operations' stack exhaust and of the weekly woodworking stations stack exhaust notations.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Reporting Requirements

A quarterly summary of the information to document compliance with the VOC (HAP) limitations shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 039-12284-00002.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Boilers
Air Make Up Systems CAM1 - CAM6 (6 Units)

Company Name: **Fabwel Composites, Inc.**
Address City IN Zip: **16710 Maple Drive, Goshen, IN 46526**
CP: **039-12284**
Plt ID: **039-00002**
Reviewer: MOP
Date: 07/06/2000

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
18.05	158.10

	Pollutant					
	PM*	PM10*	SO2	NOx**	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.60	0.60	0.05	7.91	0.43	6.64

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 7/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

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See page 2 for HAPs emissions calculations.

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Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Boilers
Air Make Up Systems CAM1 - CAM6 (6 Units)

Company Name: **Fabwel Composites, Inc.**
Address City IN Zip: **16710 Maple Drive, Goshen, IN 46526**
CP: **039-12284**
Plt ID: **039-00002**
Reviewer: MOP
Date: 07/06/2000

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.660E-04	9.486E-05	5.929E-03	1.423E-01	2.688E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	3.953E-05	8.696E-05	1.107E-04	3.004E-05	1.660E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4, Table 1.4-4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Boilers
Unit Heaters CUH4 and CUH5

Company Name: **Fabwel Composites, Inc.**
Address City IN Zip: **16710 Maple Drive, Goshen, IN 46526**
CP: **039-12284**
Plt ID: **039-00002**
Reviewer: MOP
Date: 07/06/2000

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.38	12.09

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.05	0.05	0.004	0.60	0.03	0.51

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

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updated 4/99

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Boilers
Unit Heaters CUH4 and CUH5

Company Name: **Fabwel Composites, Inc.**
Address City IN Zip: **16710 Maple Drive, Goshen, IN 46526**
CP: **039-12284**
Plt ID: **039-00002**
Reviewer: MOP
Date: 07/06/2000

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.269E-05	7.253E-06	4.533E-04	1.088E-02	2.055E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.022E-06	6.649E-06	8.462E-06	2.297E-06	1.269E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Form DD: Reinforced Plastics and Composites
Open Molding Operations*

Company Name: **Fabwel Composites, Inc.**
Address City IN Zip: **16710 Maple Drive, Goshen, IN 46526**
CP: **039-12284**
Plt ID: **039-00002**
Reviewer: MOP
Date: 07/06/2000

Material	Units per Hour	Density of Resin (lb/gal)	Amount of Resin Used per Unit (gallons/unit)	Weight % Monomer	Emission Factor (% emitted of resin weight) (see Note 1)	Transfer Efficiency (%)	Pounds VOC per hour	Pounds VOC per day	Tons of VOC per Year	Tons of PM per year
Gel Coat (styrene)	4.25	10.25	5.10	26.0%	8.5%	75%	18.764	450.338	82.187	179.936
Gel Coat (MMA)	4.25	10.25	5.10	4.0%	3.0%	75%	6.662	159.883	29.179	--
Resin	4.25	9.25	11.89	30.5%	1.8%	100%	8.390	201.367	36.749	0.000
						Totals:	33.816	811.589	148.115	179.936

* Open Molding Operations include the following: manual application, mechanical application, gel coat application, and filament application.
For all other fiberglass operations, use the AP-42 emission factors and the calculation spreadsheet fbrglsap.wb3.

METHODOLOGY

Assume all of the monomer is styrene.

Potential VOC Pounds per Hour = Maximum (unit/hr) *Density of Resin (lb/gal) * Amount of Resin Used per Unit (gal/unit)*Emission factor (% emitted of resin weight)
Potential VOC Pounds per Day = Potential VOC Pounds per Hour * (24 hrs / 1 day)
Potential VOC Tons per Year = Potential VOC Pounds per Hour * (8760 hr/yr) * (1 ton / 2000 lbs)

PM Potential Tons per Year = Maximum (units/hour) * Density of Resin (lb/gal) * Amount of Resin Used per Unit (gal/unit)* (1 - Weight % Volatiles/Monomer) * (1 - Transfer efficiency) * (8760 hr/yr) * (1 ton / 20(
Transfer Efficiency and Particulate emissions are only for spray type operations. Transfer efficiency should be provided by the source, or estimated by the guidance provided in ?????.

Note 1: Calculate Emission Factors from the CFA Styrene Emissions Determination Model For Open Molding Operations (Version 3.1, July 1998).
The model is available in the S:\igcn\oam\common\manguide\nsr-psm\calcs\calcs\noncombus folder as cfa.wb3.
The CFA model was originally in Excel but has been saved as a Quattro Pro file. The calculations still work, although the formatting isn't intact.
Hard copies of the CFA Model are available from Policy and Guidance.

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: **Fabwel Composites, Inc.**
Address City IN Zip: **16710 Maple Drive, Goshen, IN 46526**
CP#: **039-12284**
Plt ID: **039-00002**
Permit Reviewer: MOP
Date: 07/06/2000

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Styrene	Weight % Toluene	Weight % MEK	Weight % MMA	Styrene Emissions (ton/yr)	Toluene Emissions (ton/yr)	MEK Emissions (ton/yr)	MMA Emissions (ton/yr)	Emission Factor (%)
Gel Coat (Styrene)	10.245	5.100	4.25	26.00%	0.00%	0.00%	0.00%	82.19	0.00	0.00	0.00	8.45
Gel Coat (MMA)	10.245	5.100	4.25	0.00%	0.00%	0.00%	4.00%	0.00	0.00	0.00	29.18	3
Resin	9.25	11.890	4.25	30.50%	0.00%	0.00%	0.00%	36.75	0.00	0.00	0.00	1.79
Catalyst (Cadox M-5(	9.75	0.205	4.25	0.00%	0.00%	1.00%	0.00%	0.00	0.00	0.37	0.00	
Total State Potential Emissions								**118.93**	**0.00**	**0.37**	**29.18**	

METHODOLOGY

For Styrene and MMA from Gel Coat and Resin application, emissions are caculated using:
Emission Rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Emission Factor (%) * 8760 hrs/yr * 1 ton/2000 lbs

For all other materials, emissions are calculated using:
Emission Rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Boilers
Radiant Tube Heaters CTH1 - CTH14 (14 Units)

Company Name: **Fabwel Composites, Inc.**
Address City IN Zip: **16710 Maple Drive, Goshen, IN 46526**
CP: **039-12284**
Plt ID: **039-00002**
Reviewer: MOP
Date: 07/06/2000

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.40	12.26

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.05	0.05	0.004	0.61	0.03	0.52

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

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See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Boilers
Radiant Tube Heaters CTH1 - CTH14 (14 Units)

Company Name: **Fabwel Composites, Inc.**
Address City IN Zip: **16710 Maple Drive, Goshen, IN 46526**
CP: **039-12284**
Plt ID: **039-00002**
Reviewer: MOP
Date: 07/06/2000

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.288E-05	7.358E-06	4.599E-04	1.104E-02	2.085E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.066E-06	6.745E-06	8.585E-06	2.330E-06	1.288E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
VOC and Particulate
From Accesory Solvent Usage

Company Name: **Fabwel Composites, Inc.**
Address City IN Zip: **16710 Maple Drive, Goshen, IN 46526**
CP: **039-12284**
Plt ID: **039-00002**
Reviewer: MOP
Date: 07/06/2000

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Catalyst (Cadox M-50a)	9.8	100.00%	0.0%	100.0%	0.0%	0.00%	0.20500	4.250	9.75	9.75	8.49	203.87	37.21
Release (TR 900)	7.3	99.50%	0.0%	99.5%	0.0%	0.00%	0.17000	4.250	7.26	7.26	5.25	125.95	22.99
Sealer (TR 910)	7.3	100.00%	0.000%	100.0%	0.000%	0.00%	0.17000	4.250	7.30	7.30	5.27	126.58	23.10
State Potential Emissions			**Add worst case coating to all solvents**								**19.02**	**456.40**	**83.29**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Boilers
Unit Heaters CUH4 and CUH5

Company Name: **Fabwel Composites, Inc.**
Address City IN Zip: **16710 Maple Drive, Goshen, IN 46526**
CP: **039-12284**
Plt ID: **039-00002**
Reviewer: MOP
Date: 07/06/2000

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.38	12.09

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.05	0.05	0.004	0.60	0.03	0.51

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

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updated 4/99

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Boilers
Unit Heaters CUH4 and CUH5

Company Name: **Fabwel Composites, Inc.**
Address City IN Zip: **16710 Maple Drive, Goshen, IN 46526**
CP: **039-12284**
Plt ID: **039-00002**
Reviewer: MOP
Date: 07/06/2000

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.269E-05	7.253E-06	4.533E-04	1.088E-02	2.055E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.022E-06	6.649E-06	8.462E-06	2.297E-06	1.269E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Woodworking Operations

Company Name: **Fabwel Composites, Inc.**
Address City IN Zip: **16710 Maple Drive, Goshen, IN 46526**
CP: **039-12284**
Plt ID: **039-00002**
Reviewer: MOP
Date: 07/06/2000

Baghouse #1 (CDC1)

PM (controlled) = Grain Loading (grains/acfm) x Flowrate (acfm)

PM (controlled) = 0.0003 (grains/acfm) x 7900 (acfm) x 60 (min/hr) x 1 (lb/7000 grains)

PM (controlled) = 0.02 (lb/hr)

PM (controlled) = 0.02 (lb/hr) x 8760 (hr/yr) x 1 (ton/2000 lb) = 0.09 (ton/yr)

PM (uncontrolled) = 0.09 (ton/yr) / (1-0.9995) = 178 (ton/yr)

Baghouse #2 (CDC2)

PM (controlled) = Grain Loading (grains/acfm) x Flowrate (acfm)

PM (controlled) = 0.0003 (grains/acfm) x 7900 (acfm) x 60 (min/hr) x 1 (lb/7000 grains)

PM (controlled) = 0.02 (lb/hr)

PM (controlled) = 0.02 (lb/hr) x 8760 (hr/yr) x 1 (ton/2000 lb) = 0.09 (ton/yr)

PM (uncontrolled) = 0.09 (ton/yr) / (1-0.9995) = 178 (ton/yr)